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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,336	02/28/2002	Dieter Kerner	39509-177800	5608
26694	7590	12/18/2006		
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER ZIMMER, MARC S	
			ART UNIT	PAPER NUMBER
			1712	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/18/2006	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/084,336

**Applicant(s)**

KERNER ET AL.

**Examiner**

Marc S. Zimmer

**Art Unit**

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-5,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what are the materials that are being re-mixed. Clarification is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mangold et al., JP 2000-169132 in view of the teachings taken from Chapter 6 of the volume entitled *Handbook of Fillers, 2<sup>nd</sup> Edition* authored/edited by Wypych, Herzig, U.S. Patent # 4,101,499, Penneck, U.S. Patent # 4,001,128, and Cyprien Guy et al., U.S. Patent # 4,886,661 for the reasons already of record.

Claims 3-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hemme et al., U.S. patent Application Publication No. 2002/0018741 in view of the teachings taken from Chapter 6 of the volume entitled *Handbook of Fillers, 2<sup>nd</sup> Edition* authored/edited by Wypych, Herzig, U.S. Patent # 4,101,499, Penneck, U.S. Patent #

4,001,128, and Cyprien Guy et al., U.S. Patent # 4,886,661 for the reasons already of record.

It is Applicant's contention that the supporting references do not motivate one of ordinary skill to modify the surfaces of the claimed oxide materials with organosilicon materials, there being an insinuation that the Examiner relies on the hindsight of having read Applicant's Specification to establish a nexus for combination. The Examiner respectfully disagrees. First, the fact that both Mangold and Hemme "appear to be satisfied" with an untreated oxide, even in those instances where the oxide material is to be dispersed into an organic polymer, does not mean that their inventions could not be improved by the modifications suggested by the Examiner's combination. Indeed, were an expressed discontent with one's own invention needed to establish proper motivation to modify, rejections under 35 U.S.C. 103(a) would likely cease to be a viable alternative to an anticipation.

Furthermore, the Examiner did, in fact, establish a proper motivation to combine the teachings of the aforementioned references by pointing out *Wypych* teaches an incompatibility that exists between the hydrophilic surfaces of many inorganic filler materials and the hydrophobic polymers in which they are dispersed. The other references, likewise, emphasize this point. See, for instance, column 1, lines 37-56 of *Herzig* and column 3, lines 30-33 of *Penneck*. Clearly, the observation that treatment of a filler with an organic compound, in this case an organosilane, hardly constitutes a new discovery.

Concerning Applicant's alleged illustration of unexpected results in their earlier declaration, polysiloxanes like those into which the treated fillers were dispersed have notoriously poor mechanical properties in the absence of fillers. That the tear resistance is improved upon adding a treated oxide filler is not surprising at all. The organosilicon compound-modified filler particles are more uniformly dispersed which, of course, has a positive effect on the mechanical properties (this when compared to a polymer filled with aggregated metal oxide- aggregated because it has not been treated). Better transparency is, likewise, an outcome of more even dispersion of the filler.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over over Mangold et al., JP 2000-169132 in view of the teachings taken from Chapter 6 of the volume entitled *Handbook of Fillers, 2<sup>nd</sup> Edition* authored/edited by Wypych, Herzig, U.S. Patent # 4,101,499, Penneck, U.S. Patent # 4,001,128, and Cyprien Guy et al., U.S. Patent # 4,886,661 as applied to claims 3, 5, and 8 above and also in view of Lentz, U.S. Patent # 3,122,520.

Applicant has challenged the Examiner's contention that the method of claim 4 is obvious. (The Examiner had noted that none of the aforementioned references

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expressly mentioned the filler pretreatment step and had speculated that this was because that particular manipulation was such a mature concept. Official notice was taken that this step was obvious.) Lentz provides one of the earliest disclosures of filler modification, especially as it applies to filled polysiloxane matrices. Applicant is invited to review column 1, line 46 through column 2, line 25 which teaches precisely the same sequence of steps. It is said in the final paragraph of this passage that the fillers obtained by "preconditioning" with acid are superior to those that have not undergone preconditioning. Clearly, this aspect was already well known and obvious given the age of the reference.

This action has not been made final only because the Examiner introduced another reference to further validate the rejection of claim 4.

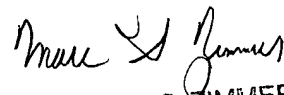
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 12, 2006

  
MARC S. ZIMMER  
PRIMARY EXAMINER